

METHOD OF MONITORING THE QUALITY OF A COMMUNICATIONS CHANNEL

ABSTRACT OF THE DISCLOSURE

A method is presented that monitors the quality of a communications channel. The method includes receiving a data signal and establishing a zero reference phase of the received data signal. The method further includes generating a phase-shifted data signal by phase shifting the received data signal relative to the zero reference phase, and sampling the phase-shifted data signal for one or more phase-shift positions. A zero reference phase is reestablished between sampling at each of the phase-shift positions. The method also includes detecting bit errors in the phase-shifted data signal at each of the phase-shift positions in order to provide a communications channel quality measurement. In an embodiment, the method includes generating an eye diagram according to a count of detected bit errors relative to a count of detected bits. The eye diagram characterizes the quality of the communications channel.